

**DEPARTMENT OF PRODUCTION AND INDUSTRIAL ENGINEERING
FACULTY OF ENGINEERING & ARCHITECTURE
JAI NARAIN VYAS UNIVERSITY :JODHPUR**

SYLLABUS FOR Ph.D. ENTRANCE EXAMINATION

- I. General Engineering**
 - 1. Engineering Mathematics
 - 2. Applied Mechanics
 - 3. Design of Components and Assemblies
- II. Production Engineering**
 - 1. Metal Casting
 - 2. Metal Forming
 - 3. Metal Joining Processes
 - 4. Machining and Machine Tool Operations
 - 5. Tool Engineering
 - 6. Metrology and Inspection
 - 7. Material Science
- III. Industrial Engineering**
 - 1. Product design and Development
 - 2. Engineering Economics
 - 3. Study and Ergonomics
 - 4. Facility Location and Layout
 - 5. Production and Operations Management
 - 6. Operations Research
 - 7. Productivity Engineering
 - 8. Quality Management
 - 9. Reliability and Maintenance
 - 10. Management Information System
 - 11. Intellectual Property Rights
 - 12. Entrepreneurship Development
- IV. Automation**
 - 1. CIM/CAD/CAM/CAPP
 - 2. Robotics
 - 3. Cellular Manufacturing
 - 4. Mechatronics
 - 5. Simulation
 - 6. Soft Computing

Depth of competence for these topics would be of the level of Master Programmes in Prod. & Ind. Engg. and related courses followed across the country.

Head of Department